REMARKS

This is a full and timely response to the non-final Office Action mailed December 15, 2004. Upon entry of the amendments in this response, claims 6 – 13 and 19 - 42 are pending. In particular, Applicant has amended claims 6, 19, 26 – 28 and 35, has added claims 36 – 42 and has canceled claims 1 – 5 and 14 - 18 without prejudice, waiver or disclaimer. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

I.   Examiner Interview

Applicant wishes to express sincere appreciation for the time Examiner Amini spent with Applicant's attorney during a telephone discussion on March 4, 2005. Applicant believes that certain important issues were identified during the telephone discussion and that they are resolved herein. During that discussion, Examiner Amini indicated that it would be beneficial for Applicant to make the amendments reflected in amended independent claims 6, 19, and 27 – 28. For example, Applicant and the Examiner agreed that the cited art does not disclose, teach, or suggest that the display of the target area occurs "automatically," nor that the target area "corresponds to a portion of the printed circuit board to be imaged by the x-ray imaging system," as now recited in amended independent claims 6, 19 and 27 – 28. Accordingly, for at least these reasons, Applicant submits that the pending claims 6 – 13 and 19 - 42 are allowable over the cited art.

Additionally, Applicant submits that each of the double patenting rejections of claims 1 – 35, as unpatentable over claims 1 – 26 of U.S. Patent No. 6,760,890 B2, have been overcome. Accordingly, Applicant submits that each rejection to claims 6 – 13 and 19 – 42 has been overcome, and the claims should be allowed.

II. Claims 1 – 5 and 14 - 18 are Patentable Over *Hsu*

The Office Action rejected claims 1 –5 and 14 - 18 under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,138,270 to Hsu ("*Hsu*"). Claims 1 – 5 and 14 – 18 have been canceled. Accordingly, the §102 rejection to claims 1 – 5 and 14 – 18 is moot.

III. Claims 6 – 13 and 19 - 42 are Patentable Over *Weisgerber* in View of *Hsu*

The Office Action rejected claims 6 – 13 and 19 – 35 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Publication No. 2003/0016859 to Weisgerber ("*Weisgerber*") in view of *Hsu*. For the reasons set forth below, the rejection should be withdrawn and the claims allowed.

Independent Claim 6

Applicant submits that independent claim 6 is patentable over any combination of *Weisgerber* and *Hsu* for at least the reason that neither *Weisgerber*, nor *Hsu*, disclose, teach or suggest each and every feature of claim 6.

For example, as apparently agreed in the Examiner interview, neither *Weisgerber,* nor *Hsu,* discloses *"displaying a target area containing the first image object selected, the target area corresponding to a portion of the printed circuit board to be imaged by an x-ray imaging system"* as recited in independent claim 6. Rather, the alleged target area in *Hsu* is apparently corresponds to an area for highlighting "differences between two graphical programs" (col. 10, lines 32-33) "by drawing a geometric symbol, such as an ellipse or circle, around the differences" (col. 10, lines 35-36). Furthermore, *Weisgerber* does not teach (and the Office Action does not allege *Weisgerber* teaches) the feature of a "target area" at all.

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Additionally, as apparently agreed in the Examiner interview, the combination of *Weisgerber* and *Hsu* does not disclose, teach, or suggest *"modifying the displayed target area such that the target area is automatically manipulated to contain the first and second image objects,"* as recited in amended claim 6. Unlike claim 6, neither *Hsu,* nor *Weiseberger,* discloses modifying a displayed target area <u>at all</u>. Furthermore, as discussed in the Examiner interview, this feature of "automatically" manipulating the target area is particularly advantageous over art which enables a user to simply manually modify the dimensions of a displayed target to include the selected image objects.

Accordingly, and for at least these reasons, Applicant respectfully submits that independent claim 6 defines over the proposed combination of *Weisgerber* and *Hsu* and, therefore, should be allowed. Furthermore, because independent claim 6 is allowable over the prior art of record, dependent claims 7 – 13 are allowable as matter of law for at least the reason that claims 7 – 13 contain all the features and elements of its corresponding independent claim 6.

Independent Claim 19

Applicant submits that independent claim 19 is patentable over any combination of *Weisgerber* and *Hsu* for at least the reason that neither *Weisgerber,* nor *Hsu,* disclose, teach or suggest each and every feature of claim 19.

For example, as apparently agreed in the Examiner interview, neither *Weisgerber,* nor *Hsu,* discloses logic configured to *"display a target area containing the first image object selected, the target area corresponding to a portion of the printed circuit board to be imaged by an x-ray imaging system"* as recited in independent claim 19. Rather, the alleged target area in *Hsu* is apparently corresponds

to an area for highlighting "differences between two graphical programs" (col. 10, lines 32-33) "by drawing a geometric symbol, such as an ellipse or circle, around the differences" (col. 10, lines 35-36). Furthermore, *Weisgerber* does not teach (and the Office Action does not allege *Weisgerber* teaches) the feature of a "target area" at all.

Additionally, as apparently agreed in the Examiner interview, the combination of *Weisgerber* and *Hsu* does not disclose, teach, or suggest logic configured to *"modify the displayed target area such that the target area is automatically manipulated to contain the first and second image objects,"* as recited in amended claim 19. Unlike claim 19, neither *Hsu,* nor *Weiseberger,* discloses modifying a displayed target area at all. Furthermore, as discussed in the Examiner interview, this feature of "automatically" manipulating the target area is particularly advantageous over art which enables a user to simply manually modify the dimensions of a displayed target to include the selected image objects.

Accordingly, and for at least these reasons, Applicant respectfully submits that independent claim 19 defines over the proposed combination of *Weisgerber* and *Hsu* and, therefore, should be allowed. Furthermore, because independent claim 19 is allowable over the prior art of record, dependent claims 20 – 26 are allowable as matter of law for at least the reason that claims 20 – 26 contain all the features and elements of its corresponding independent claim 19.

Independent Claim 27

Applicant submits that independent claim 27 is patentable over any combination of *Weisgerber* and *Hsu* for at least the reason that neither *Weisgerber,* nor *Hsu,* disclose, teach or suggest each and every feature of claim 27.

For example, as apparently agreed in the Examiner interview, neither *Weisgerber,* nor *Hsu,* discloses a system *"wherein the target area corresponds to a portion of the printed circuit board to be imaged by the x-ray inspection system"* as recited in independent claim 27. Rather, the alleged target area in *Hsu* is apparently corresponds to an area for highlighting "differences between two graphical programs" (col. 10, lines 32-33) "by drawing a geometric symbol, such as an ellipse or circle, around the differences" (col. 10, lines 35-36). Furthermore, *Weisgerber* does not teach (and the Office Action does not allege *Weisgerber* teaches) the feature of a "target area" at all.

Additionally, as apparently agreed in the Examiner interview, the combination of *Weisgerber* and *Hsu* does not disclose, teach, or suggest a system comprising *"means for displaying a target area such that the target area is automatically manipulated to contain one or more image objects selected and a maximum number of the image objects not selected are contained in the target area,"* as recited in amended claim 27. Unlike claim 27, neither *Hsu,* nor *Weiseberger,* discloses modifying a displayed target area <u>at all</u>. Furthermore, as discussed in the Examiner interview, this feature of "automatically" manipulating the target area is particularly advantageous over art which enables a user to simply manually modify the dimensions of a displayed target to include the selected image objects.

Accordingly, and for at least these reasons, Applicant respectfully submits that independent claim 27 defines over the proposed combination of *Weisgerber* and *Hsu* and, therefore, should be allowed. Furthermore, because independent claim 27 is allowable over the prior art of record, dependent claims 36 – 42 are allowable as matter of law for at least the reason that claims 36 – 42 contain all the features and elements of its corresponding independent claim 27.

Independent Claim 28

Applicant submits that independent claim 28 is patentable over any combination of *Weisgerber* and *Hsu* for at least the reason that neither *Weisgerber*, nor *Hsu*, disclose, teach or suggest each and every feature of claim 28.

For example, as apparently agreed in the Examiner interview, neither *Weisgerber* nor *Hsu*, discloses logic configured to *"display a target area containing the first image object selected, the target area corresponding to a portion of the printed circuit board to be imaged by an x-ray imaging system"* as recited in independent claim 28. Rather, the alleged target area in *Hsu* is apparently corresponds to an area for highlighting "differences between two graphical programs" (col. 10, lines 32-33) "by drawing a geometric symbol, such as an ellipse or circle, around the differences" (col. 10, lines 35-36). Furthermore, *Weisgerber* does not teach (and the Office Action does not allege *Weisgerber* teaches) the feature of a "target area" at all.

Additionally, as apparently agreed in the Examiner interview, the combination of *Weisgerber* and *Hsu* does not disclose, teach, or suggest logic configured to *"modify the displayed target area such that the target area is automatically manipulated to contain the first and second image objects,"* as recited in amended claim 28. Unlike claim 28, neither *Hsu*, nor *Weiseberger*, discloses modifying a displayed target area <u>at all</u>. Furthermore, as discussed in the Examiner interview, this feature of "automatically" manipulating the target area is particularly advantageous over art which enables a user to simply manually modify the dimensions of a displayed target to include the selected image objects.

Accordingly, and for at least these reasons, Applicant respectfully submits that independent claim 28 defines over the proposed combination of *Weisgerber* and *Hsu* and, therefore, should be allowed. Furthermore, because independent claim 28 is

allowable over the prior art of record, dependent claims 29 – 35 are allowable as matter of law for at least the reason that claims 29 – 35 contain all the features and elements of its corresponding independent claim 28.

Dependent Claims 7 – 13, 20 – 26, and 29 - 35

Applicant submits that the rejection to dependent claims 7 – 13, 20 – 26, and 29 – 35, is rendered moot in light of any of the arguments made above and, therefore, dependent claims 7 – 13, 20 – 26, and 29 – 35 are allowable as a matter of law for at least the reason that claims 7 – 13, 20 – 26, and 29 – 35 contain all the features and elements of their corresponding independent claim.

IV.   Claims 6 – 13 and 19 – 35 are Patentably Distinct From Claims 1 – 26 of U.S. Patent No. 6,760,890

The Office Action indicates that claims 1 - 35 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 - 26 of U.S. Patent Number 6,760,890 ("the '890 patent").

Claims 1 – 5 and 14 - 18

Claims 1 – 5 and 14 – 18 have been canceled. Accordingly, the double patenting rejection to claims 1 – 5 and 14 – 18 is moot.

Claims 6 – 13

Applicant submits that several important features were clarified in the Examiner interview that clearly distinguish claims 6 - 13 from claims 1 – 26 of the '890 patent. Among other things, aspects of the claimed "target area" of independent claim 6 were discussed.

With reference to the target area, independent claim 6 includes steps of "displaying a target area containing the first image object selected, the target area

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corresponding to a portion of the printed circuit board imaged by the x-ray imaging system," and "modifying the displayed target area such that the target area is automatically manipulated to contain the first and second image objects."

However, unlike independent claim 6 of the instant application, none of claims 1 – 25 of the '890 patent relate at all to displaying or modifying a target area. Additionally, the Examiner apparently indicated that the "automatic" manipulation of the target area, as in claim 6, is particularly advantageous.

Accordingly, for at least these reasons, Applicant submits that the double patenting rejection of independent claim 6 should be withdrawn. Furthermore, because independent claim 6 is patentably distinct from claims 1 – 26 of the '890 patent, dependent claims 7 – 13 are patentably distinct for at least the reason that claims 7 – 13 contain all the features and elements of its corresponding independent claim 6.

Claims 19 – 26

Applicant submits that several important features were clarified in the Examiner interview that clearly distinguish claims 19 - 26 from claims 1 – 26 of the '890 patent. Among other things, aspects of the claimed "target area" of independent claim 19 were discussed.

With reference to the target area, independent claim 19 includes logic configured to "display a target area containing the first image object selected, the target area corresponding to a portion of the printed circuit board imaged by the x-ray imaging system," and logic configured to "modify the displayed target area such that the target area is automatically manipulated to contain the first and second image objects."

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However, unlike independent claim 19 of the instant application, none of claims 1 – 25 of the '890 patent relate <u>at all</u> to displaying or modifying a target area. Additionally, the Examiner apparently indicated that the "automatic" manipulation of the target area, as in claim 19, is particularly advantageous.

Accordingly, for at least these reasons, Applicant submits that the double patenting rejection of independent claim 19 should be withdrawn. Furthermore, because independent claim 19 is patentably distinct from claims 1 – 26 of the '890 patent, dependent claims 20 – 26 are patentably distinct for at least the reason that claims 20 – 26 contain all the features and elements of its corresponding independent claim 19.

Claim 27

Applicant submits that several important features were clarified in the Examiner interview that clearly distinguish claim 27 from claims 1 – 26 of the '890 patent. Among other things, aspects of the claimed "target area" of independent claim 19 were discussed.

With reference to the target area, independent claim 27 includes a system "wherein the target area corresponds to a portion of the printed circuit board to be imaged by the x-ray inspection system," the system further comprising "means for displaying a target area such that the target area is automatically manipulated to contain one or more image objects selected and a maximum number of the image objects not selected are contained in the target area."

However, unlike independent claim 27 of the instant application, none of claims 1 – 25 of the '890 patent relate <u>at all</u> to displaying or modifying a target area. Additionally, the Examiner apparently indicated that the "automatic" manipulation of

the target area, as in claim 27, is particularly advantageous. Accordingly, for at least

these reasons, Applicant submits that the double patenting rejection of independent

claim 27 should be withdrawn.

Claims 28 - 35

Applicant submits that several important features were clarified in the

Examiner interview that clearly distinguish claims 28 – 35 from claims 1 – 26 of the

'890 patent. Among other things, aspects of the claimed "target area" of independent

claim 28 were discussed.

With reference to the target area, independent claim 28 includes logic

configured to "display a target area containing the first image object selected, the

target area corresponding to a portion of the printed circuit board to be imaged by an

x-ray imaging system" and "modify the displayed target area such that the target area

is automatically manipulated to contain the first and second image objects."

However, unlike independent claim 28 of the instant application, none of

claims 1 – 25 of the '890 patent relate at all to displaying or modifying a target area.

Additionally, the Examiner apparently indicated that the "automatic" manipulation of

the target area, as in claim 28, is particularly advantageous.

Accordingly, for at least these reasons, Applicant submits that the double

patenting rejection of independent claim 28 should be withdrawn. Furthermore,

because independent claim 28 is patentably distinct from claims 1 – 26 of the '890

patent, dependent claims 29 – 35 are patentably distinct for at least the reason that

claims 29 – 35 contain all the features and elements of its corresponding independent

claim 28.

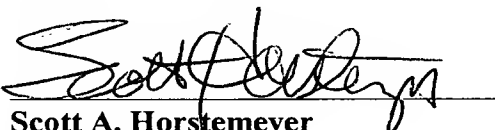## V.   Double Patenting Rejection to Claim 1 is Moot

The Office Action indicates that claim 1 is provisionally rejected under the judicially created doctrine of double patenting over claim 1 of co-pending application numbers 09/997,834; 09/998,466; and 09/997,858. However, claim 1 has been canceled. Accordingly, the provisional rejection of claim 1 under the judicially created doctrine of double patenting is moot.

CONCLUSION

The Applicant respectfully submits that all claims are now in condition for allowance, and requests that the Examiner pass this case to issuance. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

It is believed that no extensions of time or fees for net addition of claims are required, beyond those, which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to Agilent Technologies, Inc.'s deposit account no. 50-1078.

Respectfully submitted,

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